



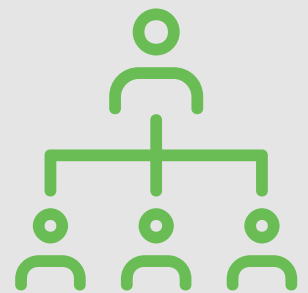
ELEMENTS OF SMART GOVERNMENT

8 To-Do's for Smarter Government

1

GOVERNANCE

Inter-departmental structure that decides, coordinates, and communicates innovation priorities and investments.



Having governance representation from multiple departments is essential, because technology is further converging traditionally siloed disciplines, and many solutions require participation from multiple City perspectives.

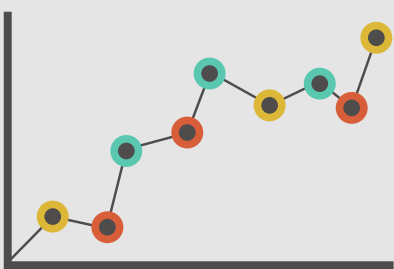
As an example, transportation is in the midst of a revolution fueled by innovations in electrification, automation, connectivity, security/IT, sharing economies, and big data. These trends are forcing governments to consider transportation from many lenses, which requires input and perspective from multiple stakeholders inside and outside the community itself.

Additionally, data is a universal attribute across city departments that needs to be combined, analyzed, and used to inform critical decisions governments make every day. Governments should have a cross-departmental governance structure that:

- **Includes executive leadership and implementation staff across key departments**
- **Coordinates, advocates, and communicates programmatic priorities across the organization's silos and with outside communities**
- **Provides process for prioritizing challenges and evaluating projects**
- **Establishes and evaluates outcomes of smart city projects**
- **Ensures execution and barrier reduction for priority initiatives**
- **Navigates external ideas, partners, and opportunities across the organization**

2

DATA + OUTCOMES



Processes and platforms that integrate and analyze data within and across government agencies, enforce privacy, and securely share valuable data with the public.

Data is powerful, and governments both consume and generate tons of data. However, its power is often locked inside bureaucratic silos and proprietary systems. New datasets are available that can improve insights and create efficiencies over traditional methods, and if local data is lacking then IoT can generate new data to inform air quality, transportation, water and many other government functions. Governments should use data to identify and track desired outcomes from smart projects. Smart data considerations include:

- **Data governance and ownership structure, process**
- **Operational budget specifically for data staff, platforms, storage, and integration**
- **Analytics platforms**
- **Process for evaluating data gaps and proactive data acquisition**
- **Privacy and security policies and process**

PARTNERSHIP



They proactively seek partners in other jurisdictions or sectors that have aligned goals to share in the risk and investment of developing innovative solutions.

The smartest governments realize that their biggest challenges can't be solved alone. They proactively seek partners in other jurisdictions and sectors that have aligned goals to share in the risk and investment of developing innovative solutions.

Partners are not vendors. If a solution already exists in the market, and the government understands the requirements to procure or deploy the right solution, then they can engage with vendors through traditional mechanisms.

If the requirements are unknown, the solution isn't fully developed, and the conditions require collaborative development or collective deployment, there is fertile ground for partnership. Many of these principles are echoed by Jordan Davis, Director of Smart Columbus, in this [US News piece](#), as she reflects on the partnerships being formed during implementation of their \$50 million USDOT smart governments Challenge award.

Governments should use the following criteria to evaluate potential partners, and they should determine how they can become better partners to others.

Aligned Goals, Outcomes – The success of the partnership is driven by shared interest in achieving a common, measurable result, and the expectations of each partner should be transparent. This needs to go beyond a solution provider's interest in securing a contract and the government's necessity to enforce it. Instead, the value of the partnership is defined by mutual success, which may or may not be enforceable in the contract itself. Key questions to answer include: What is each partner looking to get out of the partnership? What defines success for each partner? Why is this partnership a priority beyond a financial transaction?

Shared Need – Success cannot be accomplished without one another. All partners in a project should need each other to fulfill a unique role. Each partner has a valuable perspective, skillset, or resource to provide, but collectively they share what is needed to develop the right solution.

Transparent Expectations – There should be mutual understanding and acceptance of what expectations are among partners and the technology itself. What roles will each partner play in order to reach success? Is this technology premature and untested, and has this been done before?

Trust – If the partners have mutually aligned goals and shared needs, then all partners in a project should be able to establish trust in one another. Trust that the project is a priority for all partners, that the resources, staff and attention will be given to encourage its success, and that everyone shares an interest in overcoming the inevitable challenges and problems associated with successful innovation projects.

Flexibility – Doing new things often requires iteration and flexibility throughout a partnership, and the mechanisms for engagement need to allow for reasonable change or innovation. If unforeseen barriers or circumstances present themselves, all partners need to be comfortable agreeing on a new direction. This could include amending scope or budget, changing processes, or adapting schedule without altering the ultimate outcomes. Procurements should avoid being too prescriptive and provide high-level, functional requirements that allow for co-development of the product or service to fit the desired use case as it is further defined. Contracts should provide staged mechanisms for adjustment or flexibility without termination or significant amendment.

Shared Investment – All partners should be dedicating resources to the partnership – time, money, property, IP, equipment, or any other type of resource. This ensures commitment from all parties involved and differentiates partnerships from vendors.

Distributed Risk – Smart government projects, and the partnerships that should enable them, inherently involve risk: the risk of trying something new or different, of change, of unforeseen obstacles, of failure. Each partner needs to shoulder some of the risk, all partners should understand the risk the other is taking, and everyone should be involved in risk mitigation.

4

FUNDING + PROCUREMENT



Funding dedicated to innovation, flexible procurement mechanisms that enable their effective use, and operational/maintenance budget to cover the heavy service, data, and software costs associated with new technologies.

Dedicated Funding – There is a constant struggle within government to fund innovation projects that compete against essential services for finite resources within a drawn-out budgeting process. This limits the capacity and incentive for innovation within government departments, and solutions providers often end up footing the bill for pilot deployments when jurisdictions.

Functional, Flexible Procurement – The requirements of traditional competitive procurements are often too prescriptive or uninformed. In those cases, governments can make requirements definition part of the scope of the project instead, with go/no-go decision points throughout. Procurement mechanisms should prioritize functional requirements and allow for flexibility in the specifics of how solution providers respond, because government is generally not an expert in technologies like artificial intelligence, automation, or IoT, which is why they're procuring help in the first place. If a government wants innovative ways to improve traffic safety on a dangerous corridor, they should lay out the goals and outcomes without specifying they need X number of Y devices with X, Y, and Z components. Being too prescriptive makes the sandbox small and rigid, and the solution may fail because of the requirements

Operations and Maintenance – Finally, governments should consider a transition from capital to operational expenditures across their budgets. The world of technology is powered through software, networks, applications, and even equipment/hardware that require ongoing operational costs and business-as-a-service models.

5

CAPACITY

Capacity (staff) dedicated to identifying, developing, executing and evaluating new solutions in partnership with the people preoccupied with running essential government functions.



If a government wants to be smarter, they should have staff dedicated to the undertaking. Yes, innovation should be a part of the culture across all staff, but the reality is that everyone in government has core job responsibilities that limit their ability to explore new ideas. There needs to be capacity dedicated to identifying, developing, executing and evaluating new solutions in partnership with the people preoccupied with running essential government functions. This can be done by integrating innovation staff within key departments, establishing a new division, or even contracting out certain functions.

6

VALUES



Values embedded in evaluation, prioritization and communication of investments, policy, and partnerships. They provide clarity to all stakeholders around what is a priority for the city's innovation efforts.

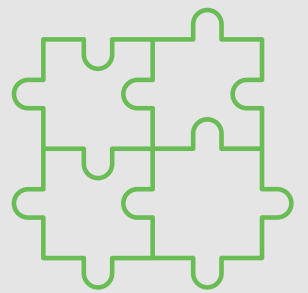
Smart governments need focus, and many establish values that prioritize their innovations around issues of particular importance. These often include equity, sustainability, privacy and resilience, but they are tailored to the interests and needs of each community. These values are embedded in evaluation, prioritization and communication of investments, policy, partnerships, and they provide clarity to outside stakeholders around what is a priority for the city's innovation efforts.

For example, if equity is a core value of a community, it can be applied to technology deployments within the city's purview, including:

- **Incentives or requirements** to serve demographically or geographically defined groups embedded in permits for deployment of 5G infrastructure or new transportation modes (scooters, bikeshare)
- **Priority in government planning and investment** for communities with inequitable quality of life outcomes such as elevated pollution levels or lack of transportation options (EV charging infrastructure, traffic safety technology, mobility hubs, air quality monitoring)
- **Engagement** with underserved communities throughout the smart project lifecycle

7

CULTURE



A culture that empowers innovation, continuous improvement, and problem-solving across all staff.

Smart governments instill a culture that empowers innovation, continuous improvement, and problem-solving into its staff. Too often the responsibility for change or innovation is contained within one position or office, but the best ideas and expertise may live with staff who aren't involved in the innovation process. In order to improve government, we need to involve the people who make up government itself. Strategies for building innovative culture could include:

- **Training access and materials**
- **Communication and promotion** across departments on smart city priorities and projects
- **Incorporation of innovation language into key job descriptions**
- **Internal challenges and funding for the best ideas**
- **Awards program recognizing innovation, partnership, etc**
- **Grant notifications and writing support** to encourage staff to pursue funding opportunities related to their innovation priorities



8

COMMUNITY ENGAGEMENT

A process for engaging communities prior, during, and after initiatives that impact them.

Smart government needs a process for engaging participating/involved communities prior, during, and after smart city projects. Their perspective is essential to the success or failure of many technology initiatives, and too often they are left out of the process, which can breed distrust of even the most promising solutions. Continuous engagement ensures that the solutions being pursued are desired, and it informs the solution with critical knowledge of the problem from those experiencing it. Too many smart governments projects are well-intentioned but are met with skepticism, fear, or misunderstanding that can only be understood and managed through communication and proactive engagement.